



## Evans Water and Sewer Board

Evans Community Complex  
Council Chambers  
1100 37<sup>th</sup> Street, Evans, Colorado

Time and Date: May 20, 2021 @ 3:30 p.m.

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### 1. ROLL CALL

Chairman: Jeff Oyler  
Vice-Chairman: Glenn Snyder  
Commissioners: Randy Blewer  
Brett Bloom  
Michael Thuener

#### Ex-Officio Members:

Mayor: Brian Rudy  
City Manager: Jim Becklenberg

#### City Staff:

Randy Ready, Public Works Director  
Mark Oberschmidt, City Engineer  
Rick Pickard, Senior Civil Engineer  
Justine Schoenbacher, Water Conservation Coordinator

### 2. APPROVAL OF MINUTES

Approval of minutes from 04.15.2021 regular board meeting

### 3. STAFF UPDATE

Introduction of Justine Schoenbacher, Water Conservation Coordinator

### 4. EQUIVALENT RESIDENTIAL UNITS

History and current state of EQRs in Evans (Rick Pickard)

**\*\*Motion: See attached staff report for suggested motion language.**

### 5. PROJECT UPDATES

- a. Tuscany Non-potable Project (Mark Oberschmidt)
- b. Lagoon Decommissioning Project (Mark Oberschmidt)
- c. Industrial Stormwater Master Plan (attachment) (Mark Oberschmidt)
- d. Water Chapter in the Master Plan (attachment) (Randy Ready)

### 6. UPCOMING

- a. Wastewater Treatment Plant Capacity Improvements (June-July)
- b. Greeley Terry Ranch Water Project Update (July)

**1. ROLL CALL – 03:30 pm**

Chairman: Jeff Oyler  
Vice-Chairman: Glenn Snyder  
Commissioners: Randy Blewer  
Brett Bloom  
Michael Thuener

**Ex-Officio Members:**

Mayor: Brian Rudy  
City Manager: Jim Becklenberg

**City Staff:**

Randy Ready, Public Works Director  
Mark Oberschmidt, City Engineer

**2. APPROVAL OF MINUTES – 03:31 pm**

Approval of minutes from 02.18.2021 regular board meeting

**\*\*Motion to approve. Second. Passes unanimously.**

**3. POTABLE, NON-POTABLE, AND STORMWATER UPDATES**

**a. Idaho Street Water and Stormwater Project (Mark Oberschmidt) – 03:31 pm**

Design of stormwater, replacing waterline, expanding detention pond, basically mitigate flooding in that area. Budget is \$150,000, so the top three bids were disqualified based on that. The area is very flat, so it will be difficult to do the design. The project has to be done by end of September 2022 because of the grant money we are using. Construction needs to start by March, finish construction by July, then finish up paperwork by September. Current storm system ends at Denver. We'd like to extend it to Idaho, but it's not very deep and we have to keep grade on the pipe. That's what we see when we look at the street.

Question: Is this all on the water side?

Answer: We are pulling from three different budgets; water is one of them.

**b. 31<sup>st</sup> Street Stormwater Project (Mark Oberschmidt) – 03:37 pm**

Finally got the storm sewer cleaned out and videotaped. Very eastern end that goes under the tracks was installed in about 1960 by the railroad. Bottom half of the pipe shows extreme rust and pitting. Our idea, which we've presented to the RR, is installing a concrete lining in the pipe. If we can get a permit from the RR, we'll get going by the end of May. We have plans ready and a contractor ready. We'll line the pipe so it stays functional.

Building detention pond in front of Kum & Go to slow down the water as it gets to the storm sewer coming off of that property. Minor infrastructure improvements to the inlets. If we can start in mid-July, we'll be done three months later.

Question: since the RR originally installed that corrugated pipe, could they fix it?

Answer: I doubt it. They've been cooperative so far, but I doubt they would do that.

Question: Will the detention pond be above ground?

Answer: It will be above ground with a block wall along the sidewalk. Rock is coming from signature stone in the industrial park, which is nice. That will help the capacity of the pond.

c. Industrial Park Stormwater Project (Mark Oberschmidt) – **03:43 pm**

This one is a drainage master plan. The EIP has a lot of lots that are just flat with trucks parked on them. Very flat, very little barrow ditches, gravel roads. We need a plan to eventually pave the dirt road and create a water quality feature on the south end of the park so that individual lots don't have to devote part of their space to detention. There will be regional detention instead. Stonegate was platted with lot-by-lot detention. We're hoping with this study to develop more effective detention in that area also. Those individual detention ponds don't do much for a region.

Question: Are we talking south of 42<sup>nd</sup> street?

Answer: Yes. South of 42<sup>nd</sup>, west of the animal shelter and going west.

City Comment: Benefit of stormwater plan also improves the surface of the roads. EIP would see a significant upgrade in the end by doing this.

d. Tuscany Non-potable Project (Mark Oberschmidt) – **03:49 pm**

This project is moving forward nicely. They are doing the bentonite layer now. The system will be online for testing soon and ready for service this June 15. The pumps got here two days ago. The contractor (L4) is doing a great job. We've added a few things and they are still under the contract cost. We'll see where we end up.

Question: Is that stormwater too?

Answer: Yes

Question: Can we do that? Arrowhead got in trouble for that.

Answer: Arrowhead's weir isn't working right, that's why that is happening. The system spills over when it reaches a certain level. Everything below that level is irrigation water and we can use it. If it goes over, it runs off.

Question: Are all those properties metered?

Answer: Yes.

e. Waterline Replacement Project (Mark Oberschmidt) – **03:51 pm**

Ditesco is doing the design for this project. There have been multiple breaks over the years. We're going to install a parallel line, which we will connect to, and then replace the road too. Then we'll upsize the pipe over by Heritage Inn and going under the highway. I think that loop is from the 1960s. It is high impact if it breaks, so it is high priority to fix.

37<sup>th</sup> street down Service road under the highway, back up state and Denver to replace water line. Dates back to 1940s. We're doing borings to see what we'll be dealing with. We'll put valves on either side of the highway so that if we ever have a problem we can just close it off. To engineers, pipes under the highway are highest priority, but Council will advise.

f. Utility Feasibility Study (Mark Oberschmidt) – **03:54 pm**

AE2S is our contractor. What can we serve with regard to wastewater and water south of river and west part of Evans? We're looking to work with Central Weld water district – maybe set up an IGA with them. A property called MountainTRAX has committed to putting in about 2 miles of 14-inch waterline (which costs about \$1.8M dollars), connecting to Central Weld. They would become our customer. 49<sup>th</sup> and 35<sup>th</sup> Avenue small 6-inch pump system. Needs to be rebuilt to service more area. Would also allow us to build a pipe going west from there out to developments on the west side of town.

There is a lot of study and coordination on the water side, but in the long run, it will really help the city.

For sewer, we are looking at what we can realistically provide south of the river. Obviously, that requires a lift station. But how far could gravity lines continue south and west, and how big would that lift station need to be? If it's industrial, it will be low flow (except for a brewery). If it's residential, then that's a lot of outflow.

Question: have you thought about an elevated water tank out that way?

Answer: We've thought of that. If we could fill a tank overnight rather than during peak hours, we could save money. We would also have more room before we hit the cap with Greeley.

g. Water Conservation Program (Randy Ready) – Attachment – **04:00 pm**

New program with the help of several different grants. Several efforts that are coming together to conserve water: WEP (10-year plan), updating the master

plan that will have a water chapter, Water Now alliance for appliances and for indoor and outdoor water audits. And we've gotten \$50k from CDBG to help with fixture replacement and an audit program. It's big enough that we need a coordinator. We have gotten really good applicants, so hopefully by the next meeting we'll be able to introduce this person to you. They will be very busy, especially for the first couple years. We're excited to see this happen. Reduce demand in development, reduce individual demand, and then public outreach to teach them about how to conserve water. We will be back to you periodically with metrics. We want to make sure we're actually making a difference.

City Comment: We believe this position can reduce our water costs with Greeley. A 5% usage reduction is \$100k in treatment cost savings.

Question: Who monitors that?

Answer: We'll see it in our overall water usage. This person will have a very big outreach role. Just to teach people about how to keep their costs low. How to maximize water usage impact, which will let our water portfolio go further.

Rick Pickard tracks our water usage across the master meters of the City and stays on top of it.

When we switch over to non-potable with the Tuscany Tract O system, we will save 100 acre feet of water with Greeley. Evans Ditch opened and is running too.

Question: Do Ditch fees go up? How is that organized?

Answer: We want to propose a business plan for the ditch.

We're hoping to coordinate the Tuscany project with the June arrival of that water.

h. **EQR Purchase Opportunity (Randy Ready) – 04:10 pm**

For the last few years we've had a handful of individual sellers who have been willing to sell potable water to developers in Evans. Other than those suppliers people have to go buy CBT at market prices. Only one has been a large holder that started out with 250 EQRs and now is down to 133.75. That seller is a widow who does not want to have to wait to sell her water. She wants to sell them to the City and we want to buy them. This is a good deal for us, so we are figuring out how to be able to do this. Then the City and this Board can approve the distribution of it over the years to help build out smaller and infill types of projects.

City Comment: It is probably time to review EQR requirements with this board. Over time, the use of water per household has gone down. We have an obligation to our development community to keep our EQR requirements fair.

Question: Is it one af per house?

Answer: No, it depends on several factors.

Question: Does the CBT .7 quota affect city?

Answer: Yes, those inefficiencies are something we try to stay on top of as it affects what we can provide to residents. This year was .7, which is average.

#### **4. WASTEWATER UPDATES**

- a. Greeley Ashcroft Draw Lift Station (Randy Ready) – Attachment – **04:21 pm**  
We showed you the draft of this agreement before. We just wanted to update you that it has been approved in final. After this goes into effect, we will be the backup or overflow plan to be used in case of emergency. Not long term, just for a few hours at a time.

There are 772 new apartments going in in Greeley that will be within the Ashcroft Draw Basin. There's a huge amount of infrastructure still to be put in, but that is coming. Cobblestone is up there too; there are a lot of homes that they are looking to put in in that area.

- b. Old Lagoon Decommissioning (Mark Oberschmidt) – **04:24 pm**  
This one is going out on the street for bid today. Knock down the berm along First Avenue. Remove sludge and take it to waste management. Construct overflow structure – currently third lagoon is overflow structure. Going to build a new one. Groundwater is so high over there that it can push on the liner. A concrete pool will handle the overflow. Bid opening is May 20. Looking to have it constructed this year.

Comment: If you drive down 85 you can see Gilcrest's lagoon liners bubbling up.

Response: They have infiltration underneath it. It off-gasses and creates a problem.

Question: The SB land of 17<sup>th</sup> Avenue between 34<sup>th</sup> and 37<sup>th</sup> is really wave now. Can we go after that contractor?

Answer: Yes, there's some settling there. We need to talk to them about that. They did a good job of the waterline and we had compaction testing done (it all passed). But yeah, we'll look into that.

Adjournment – **04:30 pm**

**\*\*Motion to adjourn. Second. Passes unanimously.**

# SEWER AND WATER BOARD

## AGENDA REPORT

**DATE:** May 20, 2021

**SUBJECT:** Consideration of Sales Price for Recently Acquired Hartley EQRs and  
Number of EQRs per Sales Transaction

**PRESENTED BY:** James L. Becklenberg, City Manager  
Randy Ready, Assistant City Manager  
Rick Pickard, Senior Civil Engineer

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### ITEM DESCRIPTION: Price Per EQR for Future Sales

Currently, small scale development applicants (requiring a small amount of EQRs) in the City of Evans could purchase full or partial Equivalent Residential Units of water (EQRs) from one of three willing sellers to meet their required water dedication needs. To date, the willing sellers on record have been the Gail Hartley Estate, Ana Salas, and B&B Real Estate. The price paid for EQRs from these sellers ranges from \$21,500 to \$22,000 for a full EQR.

The City recently closed on the purchase of 133.75 EQRs from the Gail Hartley Trust at a purchase price of \$21,500 per EQR and is establishing a Cash-in-lieu-of Program to benefit small developments which require small amounts of full or partial EQRs. In addition to the availability of EQRs, the Program will benefit small developments financially as an alternative to purchasing C-BT units.

In the event that an applicant purchases water on the open market – namely Colorado Big Thompson (CBT) water--the cost would be substantially higher. A full EQR is equivalent to 0.65 of one unit of C-BT water. A full unit of C-BT equals 1 ac-ft or 325,851 gallons of water. Therefore 0.65 of one unit of C-BT water (1 EQR) equals 0.65 ac-ft or 211,803 gallons. Northern Water controls the sale of CBT water and restricts the sale of CBT water to full units. An applicant is required to purchase a full unit of CBT water at a cost in the range of \$60,000/CBT unit. If an applicant only needs 0.6 of a unit of CBT water that would cost approximately \$36,000 (\$60,000 x 0.6), the remaining 0.4 of a unit of CBT represents \$24,000 of wasted value, since the fraction of a CBT unit cannot be sold to another party.

To establish a price per EQR the City would charge we considered the Cash-in-lieu-of price charged by other water providers in the proximity of the City. Our research provided the following results:

- **City of Loveland: \$40,150 per ac-ft** (at 0.65 factor equals \$26,098, at 0.65 factor equals 211,803 gals (325,851 gals/ac-ft x 0.65) or 211.08 1k gals, or \$123 per 1k gals.)
- **City of Greeley: \$34,000 per ac-ft** (at 0.65 factor equals \$22,100 at 0.65 factor equals 211,803 gals (325,851 gals/ac-ft x 0.65) or 211.08 1k gals, or \$104 per 1k gals.)



- **Central Weld Co. Water District: \$61,000 for 0.7 ac-ft or \$87,143 for 1 ac-ft** (at 0.65 factor equals \$56,643, at 0.65 factor equals 211,803 gals (325,851 gals/ac-ft x 0.65) or 211.08 1k gals, or \$267 per 1k gals.)
- **North Weld Co. Water District: \$58,000 for 0.7 ac-ft or \$82,857 for 1 ac-ft** (at 0.65 factor equals \$53,857, at 0.65 factor equals 211,803 gals (325,851 gals/ac-ft x 0.65) or 211.08 1k gals, or \$255 per 1k gals.)
  - Average of Loveland & Greeley at 65% of 1 ac-ft: \$24,100
  - Average of CWCWD & NWCWD at 65% of 1 ac-ft: \$55,250

The City of Evans raw water sources includes C-BT, GLIC, Lake Loveland and Seven Lakes. Greeley's Bellvue WTP can treat only C-BT water whereas their Boyd Lake WTP can treat C-BT water (when exchanged) as well as native water including GLIC, Lake Loveland and Seven Lakes. Currently, the City of Evan's potable water portfolio is comprised of 38 percent of C-BT water and the remaining 62 percent comprised of native water.

The City of Loveland and the City of Greeley also have multiple sources of water in their portfolios and therefore do not base their cash-in-lieu-of price solely on the cost of C-BT water.

In contrast, Central Weld County Water District and North Weld County Water District base their cash-in-lieu-of price based on the cost of C-BT water thus explaining the wide swing in cost of water between the four entities.

The recently purchased EQRs from the Hartley estate originated from native water sources including Greeley-Loveland Irrigation Co. (GLIC) and Lake Loveland. For this reason, we have concentrated on the cash-in-lieu-of price *average* of the Cities of Loveland and Greeley equal to \$24,100.

#### Considerations for Recommendation of Price for Sale of EQRs

- To recoup the City's investment, we could not charge less than \$21,500.
- The price set this year could be adjusted year to year to reflect the increase in the price of water.
- Setting the price for EQRs at \$22,000 would provide a return on investment of 2.3% and would stay within the current selling price of the remaining willing sellers.
- Setting the price for EQRs at \$22,500 would provide a return on investment of 4.7%.
- Setting the price for EQRs at \$23,000 would provide a return on investment of 7%

***Staff recommends setting the price per EQR at \$22,500.*** Given the limited supply of remaining EQRs and noting that the increase is only \$500 above the previous selling price we feel this is an acceptable price to begin.

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#### **ITEM DESCRIPTION: Limiting Number of EQRs Available for Sale per Transaction**

Some of the more significant reasons the City purchased EQRs is in recognition of the limited supply of available EQRs on the market and to protect the small-scale commercial developments and residential infill projects.



Due to the cost of alternative sources of water including C-BT, small development could become cost prohibitive, which could adversely affect growth patterns within the City. This concern mostly relates to small projects requiring few EQRs or partial EQRs and not to large-scale developments which are better suited to securing alternative sources of (CBT) water for dedication.

To conserve the City's EQR bank, ***staff is recommending limiting the number of EQRs sold per transaction to (3) three.*** Staff selected this number as it fulfills the EQR requirements of the most recent small-scale developments, including:

- Ziggi's Coffee – Purchased 1.35 EQRs
- BestWay2Store – Purchased 0.25 EQRs
- Randall Sorenson, Residential In-fill Project – Purchased 0.6 EQRs
- ZTS Construction Outlot 5, Grapevine Hollow, in-fill – Purchased 3 EQRs

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#### **FINANCIAL SUMMARY:**

If the purchase price of a full EQR is approved at \$22,500 for 2021, the City would witness a 4.7 percent return on investment and present a reasonable cost for raw water dedication for small scale development

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#### **RECOMMENDATION:**

Staff recommends setting the 2021 price per EQR for sale by the City at \$22,500.

Staff recommends limiting the number of EQRs sold per transaction to 3 (three)

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#### **SUGGESTED RECOMMENDATION LANGUAGE:**

*\*\*I move to recommend to the Evans City Council that the City set a 2021 fee for its recently-acquired EQRs at \$22,500 each, and that the number of EQRs sold per transaction be limited to 3 (three).*

*\*\*I move to recommend to the Evans City Council that the City set a 2021 fee for its recently-acquired EQRs at \$ \_\_\_\_\_ each, and that the number of EQRs sold per transaction be limited to \_\_\_\_\_.*

#### **ATTACHMENTS:**

- None

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# CITY COUNCIL WORK SESSION

## AGENDA REPORT

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**DATE:** April 20, 2021

**SUBJECT:** Former Wastewater Lagoon Decommissioning Discussion

**PRESENTED BY:** James L. Becklenberg, City Manager  
Randy Ready, Assistant City Manager  
Mark Oberschmidt, P.E., City Engineer  
Todd Hepworth, Civil Engineer  
Robby Porsch, Wastewater Superintendent

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### **ITEM DESCRIPTION:**

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The City is currently advertising for bids to enter into a construction contract to decommission the former Wastewater Treatment Plant (WWTP) located at 3323 1st Avenue, on the northwest corner of 1st Avenue and 37th Street. Since the construction of the new Wastewater Treatment Plant, the City is no longer using two of the three old wastewater lagoons. The southern lagoon (# 3) is currently needed and available as an emergency overflow for the lift station on the site. The northern and central lagoons (# 1 & # 2) have been dewatered and are completely offline.

In order to use the land where the lagoons were for another purpose, they must be officially “decommissioned” per state regulatory requirements. The engineering and environmental clearance work has been completed, resulting in a set of plans that will allow the City to move forward to complete the decommissioning of the Lagoons this year. The City is currently planning a stormwater outfall project that could potentially convey stormwater along an alignment that passes through the northern lagoon (#1) on the way to the South Platte River. The decommissioning has to be completed before the stormwater project can be constructed at that location.

Decommissioning will result in the land that the Lagoons occupied becoming available to be used for another purpose, such as a park, without negative environmental impact to the surrounding lands or waters of the United States. Additionally, the project will modify Lagoon #3 to provide the necessary overflow capacity for the proximate lift station (200,000 gallons) with a larger footprint and shallower depth to minimize the risk of groundwater penetrating the liner and lifting/tearing the liner creating an environmental problem for the City.

Proposals for construction are being solicited and staff will return to City Council in June for further consideration of the scope of work and construction contract cost. This work session discussion is intended to focus on the purpose of the decommissioning and the rationale for proceeding with the work.

### **BACKGROUND**

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The use of lagoons (or facultative lagoons) as a wastewater treatment process has been used in the United States since the early 1900s. The process uses treatment ponds usually between four and eight feet deep, but never more than 12 feet deep. When left undisturbed, lagoons naturally treat wastewater by stratiating into three layers. The top zone mixes with the air above to become oxygen-rich (aerated or aerobic), and the bottom is an oxygen-starved zone (anaerobic). Between these layers is a mixed zone where the mix of algae and beneficial bacteria break down sewage into biosolids and treated effluent for discharge.

This breakdown process is sensitive to sewage influent characteristics such as pH levels and the degree of nutrient loading. While the process works well in warmer climates, there are challenges for year-round operation in colder climates, such as the winter months in Evans. When the temperature drops, the beneficial (or facultative) bacteria slow down in production and do not digest waste as well. Additionally, temperature changes affect the lagoons' water density and may cause the pond to "roll over," which brings the bad-smelling anaerobic zone to the surface, often causing odor complaints from residents in the surrounding area.

Good lagoon management to mitigate odors and meet effluent requirements can include the use of aerators to sustain an oxygen-rich top layer, limiting pond discharge during the winter cold period, and possibly using man-made wetlands to further enhance pond treatment before the effluent reaches a waterway.

Lagoon technology was commonplace and worked well for the rural United States—where open land was abundant and minimal urban crowding occurred—until about 50 years ago. Recent and soon-to-be-enacted water quality standards are making this approach to wastewater treatment inviable. The main concerns are related to nutrient loading of nitrogen and phosphorous into the receiving waters that subsequently become downstream sources of drinking water. New effluent standards permit considerably lower limits than what was permitted when Evans' old WWTP was designed and in operation. Over time, the City was able to keep up with previous standards through process changes including aerators, chlorine disinfection and then dechlorination prior to discharge. However, towards the end of when Evans utilized the former WWTP, with discharge standards becoming more restrictive, the former lagoon system was up against several compliance issues:

- The Evans treatment plant was well over 100% Organic Loading Capacity from 2013 until it was retired in 2018.
- The Evans Treatment plant was in violation of its Effluent Discharge Permit issued in 2008 during 17 out of the last 18 months before the plant was taken off-line.
- The Discharge permit for the Evans Treatment plant is set to be renewed in 2021-2022 with effluent regulations equivalent to the New Treatment Plant's discharge permit that the old plant cannot meet.

In an effort to meet the new standards, additional measures such as additional aeration, synthetic (plastic) pond covers for thermal control, and significantly greater pond areas and/or constructing wetlands to "polish" the effluent from the ponds prior to discharging to the South Platte River would be required. Each of these improvements would come at a substantial cost, and still may not be enough to meet the new regulations:

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- Aeration depends on electricity for blowers and motors. These are typically the highest contributors to the electricity bill for all communities across the U.S. for both ponds and mechanical treatment processes (like Evans' new WWTP).
  - Plastic covers can help with stabilizing temperatures during cold weather but are problematic for areas with Evans' weather extremes. During eight years of operation, Glenrock, Wyoming, with similar (if not more extreme) weather conditions, has had to repair and replace sections of pond covers numerous times. Furthermore, while helping with temperature control, improperly designed covers can interfere with oxygen transfer that naturally occurs at the ponds' surface due to breeze/wind action, and therefore reduce the ponds' treatment ability.
  - Manufactured wetlands may theoretically be able to assist with nutrient removal but can double the land required for the overall WWTF. Earthwork to form wetlands, potential lining to protect groundwater, and potential shallow groundwater and drainage concerns that may restrict constructability are all potential factors, not to mention the cost of land acquisition and construction. In addition, while growth and preservation of wetlands is encouraged in floodplains as part of floodplain management and protection, "industrial wetlands" have different State permitting requirements than constructing and preserving the riparian/riverine corridor.

It has become apparent that as effluent standards have become more stringent, the facultative lagoon process used for the former WWTP and other lagoon systems like it fundamentally cannot meet EPA discharge standards. To meet current and the soon-to-be-imposed more restrictive limits, it would be necessary to upgrade to a similar treatment technology as the new treatment plant at a comparable, if not greater construction cost—essentially building another new treatment plant at the old location.

Finally, there are three other issues to consider:

1. The former WWTP is fully within the 100-year floodplain (especially with the 2020 FEMA FIRM update). This floodplain has had a history of flooding including the most recent 2013 (complete inundation) and 1969 (nearly at top of the perimeter berms) flood events. Use of the site would require adding additional embankment to raise the lagoons' berms above projected flood levels. This may be problematic due to the proximity of the Evans Town Ditch, 37th Street, and 1st Avenue.
2. Since the ponds have been out of service since 2018, it is likely that CDPHE would require relining the ponds to meet new regulations. In addition to that work, there would still be the same concerns regarding removing the remaining biosolids, as well as dewatering and then liner installation.
3. The City's ongoing East Side Storm Sewer (ESSS) project proposes to extend a storm sewer through the northern lagoon. This is a cost saving measure that stands in contrast to the 2016 Drainage Master Plan alignment that went around the lagoons increasing the length, complexity, and cost of the stormwater project.

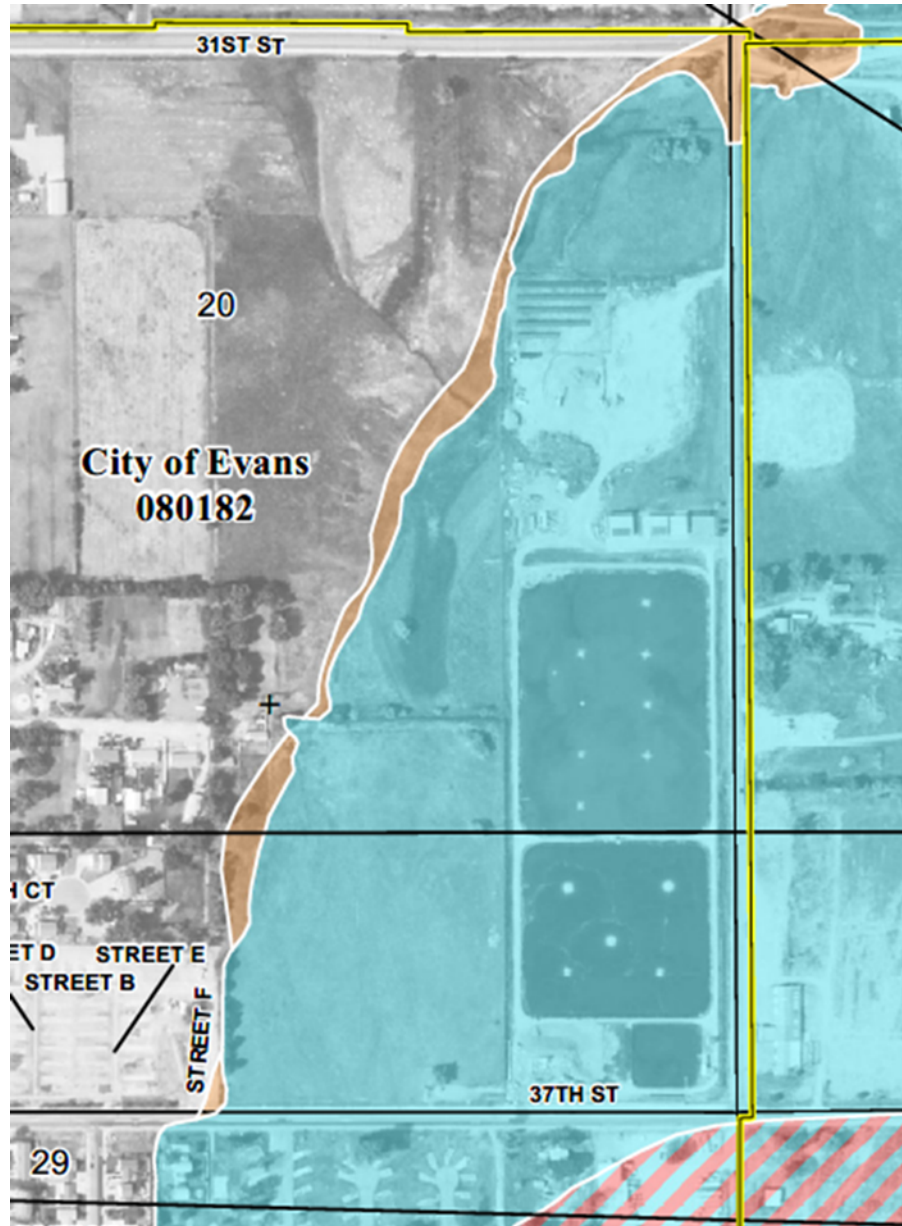
In closing, facultative lagoon treatment technology is being regulated out of being a practical approach to treatment for anywhere except warmer regions that have a stable year-round climate.

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If the plant were to be reconstructed as a mechanical plant similar to the Hill-n-Park WWTP, there would be significant costs for headworks, pumping, discharge, and staffing manpower. This completely redundant construction and operation would be much more expensive than expanding the Hill-n-Park facility.

At this time, decommissioning the facultative lagoons is the most economical approach due to the costs and issues stated above regarding either rehabilitation and/or upgrading this site for a regulatory-compliant WWTP. Decommissioning will open up the City's property to alternate and beneficial land use, including immediate use as the route for the stormwater pipe, followed by redevelopment to meet community needs.



Excerpt of FIRM Panel 08123C1543F (Preliminary 9/17/2020)

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**FINANCIAL SUMMARY:**

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Staff will return with project budget information along with the request for consideration of the construction contract at a future City Council meeting.

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**REQUESTING FROM CITY COUNCIL:**

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Staff requests Council questions and comments regarding the lagoon decommissioning project.

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## CITY COUNCIL AGENDA REPORT

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**DATE:** May 4, 2021

**SUBJECT:** Consideration of Award of Bid for the Evans Industrial Park / Stonegate Industrial Park Drainage Master Plan

**PRESENTED BY:** James L Becklenberg, City Manager  
Randy Ready, Assistant City Manager  
Mark Oberschmidt, P.E., City Engineer

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### ITEM DESCRIPTION:

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A Drainage Master Plan for Evans Industrial Park and Stonegate Industrial Park will help correct some long-term drainage issues in that area. Following is a description of the underlying problems and a comparison of the proposals the City received in response to the Drainage Master Plan RFP published in March 2021.

There have been several recent development projects in the Evans Industrial Park that required individual on-site detention or water quality measures that reduced the amount of developable land on the parcels. In addition to that problem, development that occurred in the early 1980s included gravel roads and borrow ditches. Over time these borrow ditches have filled in and ceased to adequately convey stormwater away from the properties and to the South Platte River. The Drainage Master Plan scope includes defining a location on the downstream side of the Industrial Park, possibly the DeJohn property along Brantner Road, for a regional detention or water quality pond. Changes in the South Platte River floodplain mapping have widened the floodplain to include the DeJohn property reducing the ability to develop it economically.

Looking at Evans Industrial Park led to consideration of the Stonegate Industrial Park just to the west, with similar regional drainage issues. Stonegate Industrial Park has been platted since 2004 but no development has occurred to date, in part due to the lot-by-lot stormwater mitigation that is currently required there. Similar to the situation in the Evans Industrial Park, creating an Outlot and a regional detention / water quality pond in Stonegate would increase the developable area of the other lots. The cost of maintenance of that regional detention pond would then be shared by the individual lot owners.

Improving drainage infrastructure in both Evans Industrial Park and Stonegate Industrial Park would make development of the remaining lots more attractive to owners / potential developers.

A drainage master plan is the first step towards creating a more regional approach to stormwater infrastructure for both sites as well as creating a conceptual plan for the City to eventually design, construct, and implement with developer assistance.

Staff requested proposals for a Drainage Master Plan for these two sites on March 11, 2021.

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Evans received and reviewed two proposals for the Drainage Master Plan on April 08, 2021 as outlined below:

• Consultant	Scope Score	Fee Score	Total Score	Fee
• Muller Engineering	234	5	239	\$77,409
• Coffey Engineering	203	10	213	\$61,080

Muller prepared the 2016 Drainage Master Plan for the City, so that firm already has the majority of the modelling completed for the entire Industrial Park Basin—an area that extends well beyond the limits of these two sites. Additionally, Muller has extensive experience in developing Fee-in-Lieu requirements that will assist Evans in developing the final lots in Evans Industrial Park and the lots in Stonegate Industrial Park. The Muller proposal includes evaluation of groundwater elevations to ensure that any excavation of a water quality pond would not adversely impact the groundwater in the area. Knowledge of the groundwater elevations may reduce the overall risk of the drainage infrastructure in relation to the South Platte River floodplain.

Muller is well-respected in the stormwater management field and has a great deal of experience with the Mile High Flood District (MHFD formerly UDFCD). Staff reached out to several of their references within the MHFD and received all positive comments.

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#### **FINANCIAL SUMMARY:**

Evans has \$85,000 budgeted for this project with \$60,000 from the Stormwater Fund and \$25,000 coming from a grant received from Department of Local Affairs (DOLA). Both proposals are within the amount budgeted.

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#### **RECOMMENDATION:**

Staff recommends award of the contract to Muller Engineering based on 1) the superior quality and responsiveness of the proposal, and 2) the fact that Muller has previous experience in the basin, extensive regional stormwater data, and the ability to hit the ground running with the Drainage Master Plan for the Evans and Stonegate Industrial Parks.

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#### **SUGGESTED MOTIONS:**

“I move to award the Evans Industrial Park Drainage Master Plan Contract to Muller Engineering in the amount of \$77,409 and to authorize the Mayor’s signature on the contract.”

“I move to deny award of the Evans Industrial Park Drainage Master Plan Contract.”

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#### **ATTACHMENTS:**

- Professional Services Agreement
- Muller Proposal
- Muller Fee Proposal
- Scoring Matrix Summary



# DRAFT WATER RESOURCES ELEMENT FOR THE CITY OF EVANS MASTER PLAN UPDATE

Prepared by Del Corazón Consulting  
August 2020

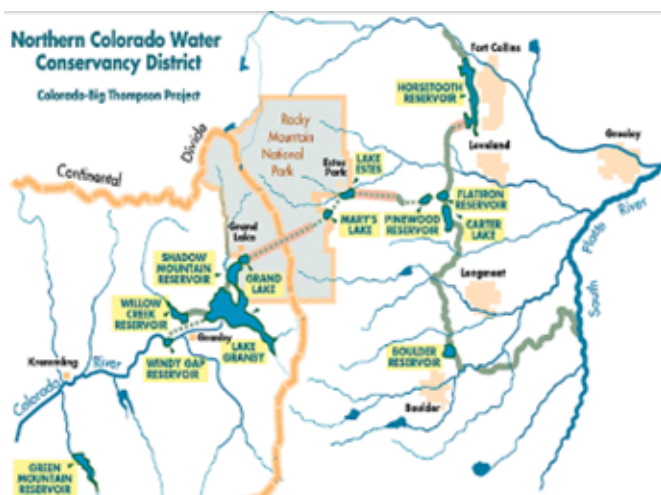
## EXISTING CONDITIONS & TRENDS

### Where Our Water Comes From

Water is life. Without access to a sustainable supply of clean water, the City of Evans cannot thrive. The importance of water has driven the City to be proactive in ensuring a reliable supply of water and has a sufficient supply into the future, it does face some challenges.

Water Vocabulary					
Acre Foot		The amount of water required to cover one acre at a depth of one foot. The City of Evans estimates that each residence consumes 6/10 of an acre foot per year.			
Firm Yield		The amount of water that can be expected to be supplied during typical dry years where normal water supplies are reduced due to drought. This does vary from year to year based on the amount of water available.			
Average Annual Water Yield		The amount of water available from water rights during an average normal year.			
Potable Water		Potable water, also known as drinking water, comes from surface and ground sources and is treated to levels that that meet state and federal standards.			
Non-potable Water		Water from sources such as creeks, lakes, and reservoirs suitable for irrigation but not for drinking water.			
City of Evans Potable Water Supply Water Demand Projections					
Year	Treated Water Demand (in Acre Feet)	Average Annual Yield (in Acre Feet)	Firm Yield (in drought year)	Remainder Average Yield	Remainder Firm Yield
2019	2,717	6,361	3,530	3,644	813
2028	3,247			3,114	283

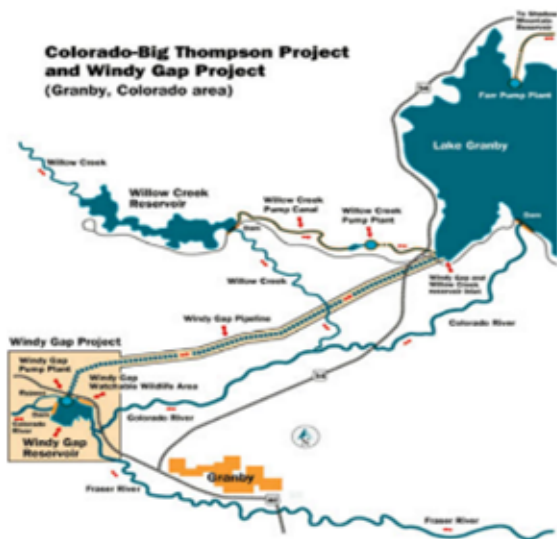
Most of the City's potable water comes from two principle sources of surface water. The majority comes from the Colorado River through Big Thompson (C-BT) allotment which brings water across the mountains from the Colorado River Basin with the remainder coming from the eastern slope of the Continental Divide. Each water source is stored in reservoirs and lakes conveyed through a network of ditches that brings it to a water treatment plant.



Portions of the City and future growth areas in the unincorporated county are served by the Central Weld County Water District (CWCWD) which relies on Colorado-Big Thompson (C-BT) water and Windy Gap water. The District also owns approximately 5,000 acre-feet of storage in Dry Creek Reservoir located west of Berthoud, Colorado

Evans is already preparing to meet future water supply challenges as water in Colorado becomes scarcer, more competitive to acquire, and more expensive. The State of Colorado Water Plan projects that by 2030 there will be a 20% gap between Colorado's water supply and the demand. The scarcity of water is a result of many factors including increasing demand from population growth and declining precipitation due to prolonged droughts. While the City of Evans does not project a water supply and demand imbalance in the next decade, the City is working to ensure it can provide a reliable water supply that will not threaten the economic vitality of the community, is fiscally sustainable for the City's budget, does not overburden tax payers and homeowners, and does not place pressure on already rising housing prices.

To achieve this goal, the City adopted a requirement for new development to acquire and transfer water rights to the City to offset new demand. Additionally, the City is participating in a future water supply project, the Northern Integrated Supply Project (NISP), that will enhance the City's ability to meet future demand and be more resilient to drought. The NISP will create two new reservoirs near Fort Collins and Greeley that could generate an additional 40,000 acre-feet of new, reliable water supplies for fifteen northern Front Range water providers. NISP is slated to supply water around 2028, if approved, and will allow for the storage of water rights from along the South Platte to be put to urban use. NISP would provide the City with 1,600-acre feet of water for a cost of around \$20 million.



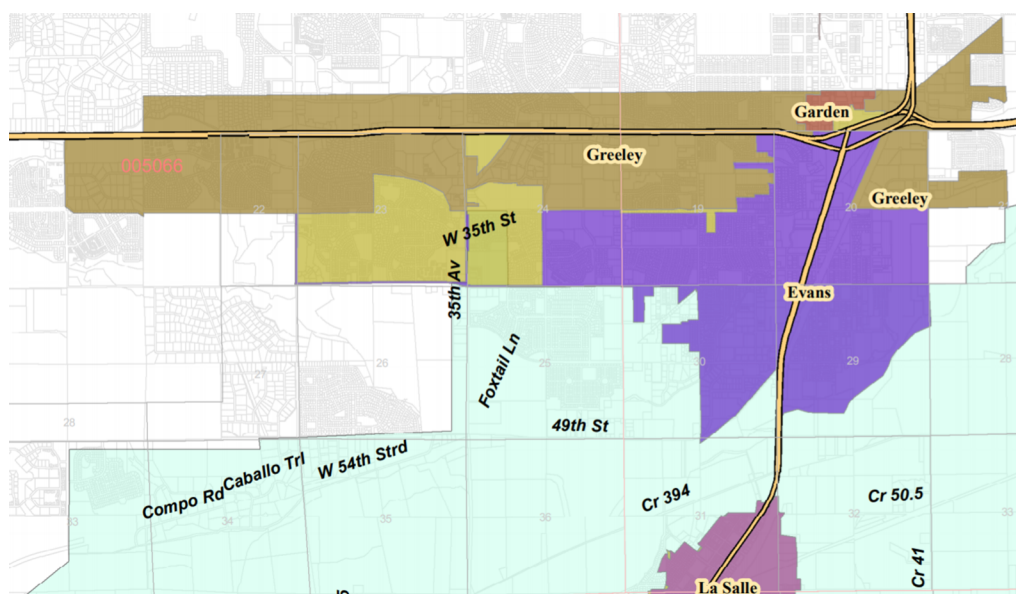
For parts of the City connected to the CWCWD, their CB-T quota has historically averaged approximately 70% of delivery; however, in drought conditions, that can be reduced to near 30% of delivery. The CWCWD is also participating in NISP to increase resiliency of its water supply and meet future demand.

## How Our Water Is Treated and Distributed

The City of Evans Public Works Department includes a utility department that distributes water to customers in the City and parts of the unincorporated Weld County through a 25-year agreement with the City of Greeley. The City of Evans transfers its raw water supply to the City of Greeley based on a projected annual water demand. The City of Evans pays the City of Greeley a monthly charge plus 10% for treatment, conveyance, storage, compliance monitoring and administration for use of their water distribution system. When the City of Evans exceeds the agreed upon amount of water, Greeley charges the City an additional fee for exceeding its water allowance. It is in the City of Evans financial best interest to ensure the city's annual water use stays within the allotted amount.

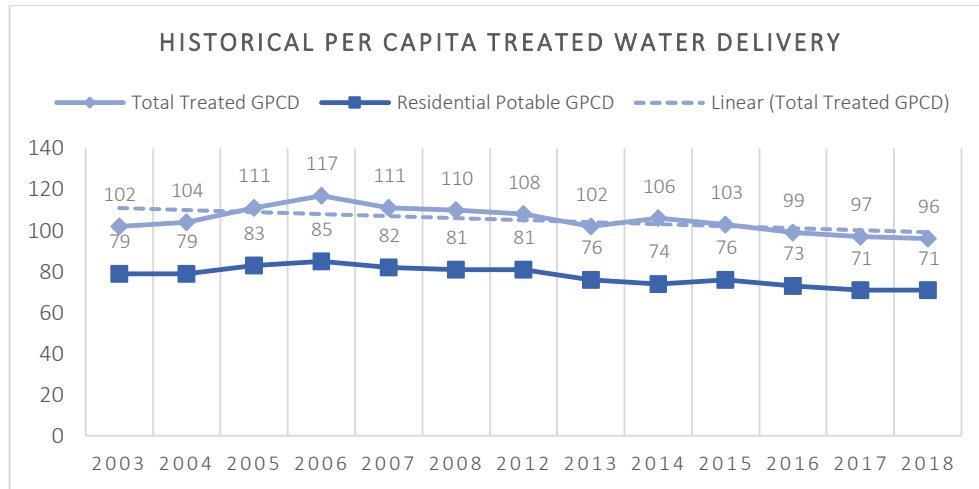
Smaller portions of the City of Evans as well as future growth areas are served by the Central Weld County Water District whose domestic water service area is generally bounded by the City of Greeley on the north, County Road 6 on the South, the South Platte River and the St. Vrain River on the West and follows the State Highway 85 corridor. Their water distribution system includes approximately 350 miles of infrastructure. As the City grows, policies will need to be developed to clarify water connections in zones where service areas overlap.

**NOTE For the comp plan and addressing future discussion about water service connections, it would be helpful to have a single GIS map that shows the Evans utility service area, CWCWD service area, the city boundary, existing infrastructure.**



## How We Use Our Water

Nearly 70% of treated water used in the City of Evans is used for residential purposes. This means that the way the City of Evans grows and develops will greatly impact the sustainability of its water resources. Over the past three decades, plumbing fixtures and appliance have become more water efficient simultaneously with a growing awareness of the need for water conservation. As a result, national trends in water demand have shown a declining per capita per day water use despite a growing economy and population. The City of Evans has followed this national trend and has been using less water per person since 2003.

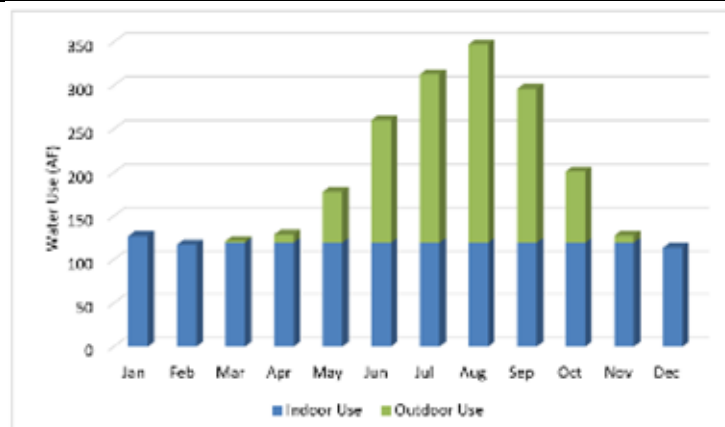


Water demand data was not available from the CWCWD. Their Water Efficiency Plan states they rely on the development and building/plumbing codes of local government to create the standards for water use in developments.

#### (graphic of community survey awareness of water)

How the City uses water for irrigation offers the greatest opportunity for greater water conservation and efficiency. Outdoor watering during the summer months places significant pressure on the City of Evans water supply and infrastructure. Of total treated water use, nearly 40% of the City's treated water is used for outdoor use between May and October. The City requires new development to use non-potable water for irrigation where adjacent to a potable water system or ditch as a way to reduce impacts on the limited treated water supply. While this has helped to reduce pressure on existing water supplies, non-potable water only accounts for 8% of the total water used in the City despite availability of additional non-potable water supplies. Expanding the use of non-potable water will require expansion of the non-potable water delivery system. If the City of Evans wants to avoid paying future surcharges to the City of Greely for exceeding its treated water allowance, greater water conservation will need to come from increased outdoor water efficiency in residential and commercial development. The City has adopted some limited water efficient landscape standards, but to have the impact necessary to protect the City's water supply will need to pursue additional strategies.

2019 Water Efficiency Plan: Summary of Average Indoor-Outdoor Water Demand 2012 - 2018



(use graphic of community support for landscaping)

### Using Our Water Wisely

Increasing water efficiency is one of the City's least expensive ways to address water sustainability and resilience. In 2019, the City updated its Water Efficiency Plan (WEP). The WEP is a road map for increased water savings and efficiency in the City of Evans for the ten-year period 2019 to 2028. The plan outlines a goal of reducing overall City water use by 10% by 2028, including a conservation target for the residential sector of 13%. The WEP considers the cost and benefits of investments in water supplies and infrastructure compared to water conservation and efficiency. Many of the recommended strategies from the WEP are included in this master plan.

### Where Our Wastewater Goes

The City of Evans has two wastewater treatment facilities (WWTF), Evans and Hill n Park. Following the 2013 flood, which inundated the Evans WWTF, Evans construct a new facility in 2018. The total capacity of the new plant is 3 million gallons per day, which is operating currently at about two thirds of total capacity. The service area for this plant includes Evans, portions of southwest Greeley, and surrounding areas of Weld County. The Hill n Park WWTF also has operational capacity to meet future growth.<sup>1</sup> The City's future growth should try to maximize the investments in wastewater infrastructure and minimize the need for future upgrades due to exceeding capacity.

Finally, both WWTFs discharge to the main stem of the South Platte River in Middle South Platte River Subbasin. While there are not currently downstream water withdrawals for urban uses, this is expected to change in the future which could require the City to meet more stringent water quality standards.

### Protecting Community Health, Safety, and Natural Systems

The 2013 floods along the South Platte and Big Thompson Rivers were devastating for the City of Evans, especially to the historic old town area, taking out nearly 300 residences, roads, and one of the City's wastewater plants. The City responded by adopting a new approach to floodplain management, making investments in stormwater management, and studying watershed restoration to make the City more resilient to future disasters.

In 2016, the City followed recommendations of the Flood Recovery and Redevelopment Task Force to update its floodplain regulation to better protect new development from future floods. The City also updated the Stormwater Master Plan in 2016 identifying infrastructure improvement projects to reduce future flood risks. Finally, the City developed the 2015 South Platte River Restoration Plan which identified strategies for enhancing the health of the watershed by reconnecting the floodplain to the river. Natural floodplains help filter stormwater runoff, provide recreation opportunities and habitat for fish and wildlife, and when left undeveloped help safely convey flood water. Both the Stormwater Master Plan and South Platte River Restoration Plan identify the value of restoring the functions of the South Platte and Big Thompson river systems in order to better protect human safety and enhance water quality. Many of these strategies have not yet been implemented and are integrated into this master plan update.

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<sup>1</sup> The service capacity summary by the comp plan consultant should be included here on service capacity.





### Managing Water Resource in the Face of Drought

Since the initiation of the Drought Monitor in 2000, Colorado has not been without at least a portion of the state in drought conditions except for 14 weeks in 2019 following the above average snowpack of the winter of 2018/2019. Drought has become the new normal. While Weld County and the City of Evans are often one of the few areas spared in the state, the City's water supplies are not as they originate in the mountain snowpack and reservoirs. The City manages its water supply for dry years and currently has a sufficient buffer, or firm yield, to ensure adequate water during drought for the next decade. However, that buffer will decrease as the City grows and as drought intensifies without either increasing water supply or increasing water conservation and efficiency. The City's Water Efficiency Plan recommends updating the drought management plan to account for changes in City management practices and water supply.

## PLANNING FOR THE FUTURE

### Summary of Key Challenges

As the City of Evans looks forward into the future it has considered the following issues to ensure the sustainability and resiliency of its water resources.

- The price of water on the Front Range is increasing as new sources of water become scarcer. The City should continue to be proactive in pursuing fiscally responsible future water supplies.
- Demand for water as Evans may increase with population and economic growth unless conservation and efficiency measure are taken.
- Peaks in demand due to seasonal irrigation will continue to increase and put pressure on the City's treated water supply without more water efficient landscapes.
- Financial costs of regularly exceeding the threshold for treated water supply in the agreement with Greeley is unsustainable.
- The degradation of watershed and ecosystem functions endanger people, water quality, and wildlife.
- Decrease in water supply yields due to prolonged drought and changing precipitation patterns are expected.

## Embracing A New Approach for Integrated Water Resource Management

While a small city, we have taken many steps forward to increase resilience of our water supplies. This master plan builds upon what the City has already done by integrating recommendations from existing plans and supporting ongoing initiatives. What is new is the City of Evans effort to increase coordination and collaboration across the different City sectors responsible for managing the water supply, wastewater treatment and distribution infrastructure, the City's public lands and parks, stormwater management, floodplain safety, and land use development. Each of these sectors is guided by different departmental plans that necessitates enhanced collaboration on plan development, alignment, and implementation.

City of Evans Actions on Water Resource Management	
<ul style="list-style-type: none"> <li>• Water Right Dedication For New Development</li> <li>• Requirement for New Development to Irrigate with Non-Potable Water</li> <li>• Advanced Metering Infrastructure Installation and Operations</li> <li>• Water Rate Study/Water Efficient Rate Structure with Regular Updates</li> <li>• Water Reuse System at the Wastewater Treatment Facility</li> <li>• Tap Fees with Water Use Efficiency Incentives (Lot-based water dedication)</li> <li>• Master Plans/Water Supply Plans/Integrated Water Resource Plans</li> <li>• Drought Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• General Monitoring and Verification Activities and General Water Rates and Billing</li> <li>• Weekly and Time of Day Outdoor Watering Restrictions</li> <li>• Water Waste Ordinance</li> <li>• Irrigation System Standards for New Developments</li> <li>• Landscape Design Requirements</li> <li>• Public Education (Newsletter, Webpage, Interactive Website, Social Media, etc.)</li> <li>• Children's Water Fair or Festival</li> <li>• The City is currently developing a policy for car wash standards for new construction as well as funded a water conservation officer in the past, dependent on budget.</li> </ul>
<i>Source: 2019 Water Efficiency Plan</i>	

City of Evans Plans or Policies Related to Water Resources Management	
Water Efficiency Plan	2009
City of Evans's Comprehensive Plan	2010
Flood Recovery Plan	2015
Water Master Plan	2016
Water Efficiency Plan	2019
Land Use Code (Ch. 18 Municipal Code)	--
Irrigation Specification	2000
Lawn and Grass Specification	2000
Stormwater Master Plan	2016
South Platte River Restoration Plan	2015
City of Evans Open Space and Trails Master Plan	2004
Wastewater Treatment Plan Update	2013

## GOALS, OBJECTIVES, AND POLICIES

### A Vision for Water Resource Management

*The City of Evans will manage all its water resources sustainably recognizing water is a finite and irreplaceable resource that is fundamental to our community's wellbeing.*

### Goal 1: The City of Evans will sustainably manage its water resources to enhance community resilience.

#### Theme: Water Efficiency

**Objective 1.1** Develop and support a water conservation program in the City that increases community awareness about the need to save water and supports project implementation.

Strategy: Implement priorities identified in the 2019 Water Efficiency Plan to hire a water conservation staff person to manage water conservation program development and implementation.

Strategy: Create City “lead by example” demonstration project to demonstrate to the community how indoor and outdoor water can be more water efficient.

- a. Using the WEP and Master Plan to inform project list, create an action plan for project implementation.

Strategy: Increase collaboration between different City departments involved in water resource management to seek funding for plan implementation.

**Objective 1.2** Continue to strengthen partnership with Northern Colorado Water Conservancy District to enhance the City's capacity for water resource management.

Strategy: Collaborate with NCWCD to apply their water efficiency programs and resources within the City of Evans.

#### Theme: Zoning and Development

**Objective 1.3** Adopt development code revisions that result in more water efficient development.

Strategy: Promote a more water efficient commercial sector.

- a. Adopt car wash standards requiring water recycling.

Strategy: Identify areas of the City of Evans to promote clustering, redevelopment, and smaller, more compact lots that support a more water efficient land use pattern.

- a. Diversify zoning districts to allow for a greater diversity of smaller lots sizes in new development and redevelopment.
- b. Create a conservation or cluster subdivision ordinance that allow for creative site design and protection of prioritized natural resources, natural hazard areas, or agriculture lands.

- c. Explore a transfer of development rights program to incentivize private landowners to protect prioritized natural resources, natural hazard areas, or agriculture lands in exchange for selling development rights to intensify development in redevelopment areas.

Strategy: Create incentives and update the development code to achieve water efficient landscapes.

- a. Update the water conservation ordinance to revise the time of day watering standards and a new water waste ordinance.
- b. Update the existing landscape code to be more water efficient.
- c. Create water efficient public streetscapes and parking lots.
- d. Develop water efficient irrigation design standards for public and private parks including incorporation of native or xeriscape as percent of park total, smart controllers, and rain/wind sensors.
- e. Develop a financial incentive, such as a system development fee reduction, for incorporation of more water efficient landscapes for residential and commercial subdivisions.
- f. Adopt a Restrictive Covenant Ordinance to prevent prohibition on water efficient landscapes in subdivision covenants.

Strategy: Create incentives and update the development code to promote indoor water efficiency.

- a. Adopt a water conservation ordinance to require plumbing fixtures in new and redevelopment projects to be consistent with the State of Colorado WaterSense rule.

### ***Theme Watershed Health***

**Objective 1.4** Protect water quality and enhance watershed health for the South Platte, Big Thompson, and ditches.

Strategy: Develop water quality protection standards for waterbodies and wetlands.

- a. Use recent assessments of natural areas to identify priority wetlands, recharge zones, and riparian areas to inform site planning.
- b. Adopt a minimum 50-100-foot setback to minimize disturbance along riverbanks and riparian corridors.
- c. Adopt wetland setbacks that include inner and outer buffers.
- d. Develop riparian corridor and wetlands standards that minimizes the disturbance and removal of riparian plant communities.
- e. As recommended in the Stormwater Management Plan, develop a plan for managing stormwater discharge along the South Platte and tributaries.

Strategy: Implement the South Platte River Restoration Plan strategies to reconnect the floodplain to the river.

- a. Explore a transfer of development rights program to incentivize private landowners leaving land in the floodplain undeveloped in exchange for selling development rights to intensify development in redevelopment areas.

Strategy: Incorporate water efficient and native landscapes into City and neighborhood public lands management.

- a. Update streetscape design standards to reduce the need for irrigation by integration of rain gardens, native plants and xeric landscapes into streetscapes, medians, and parking lots in the development code and design manuals.
- b. Coordinate with the water conservation program staff to use public lands as “lead by example” demonstration projects for education on xeriscaping and native landscapes.
- c. Manage the City’s public lands to restore and enhance native plant communities, particularly in the areas around the rivers, ponds, ditches, and other waterbodies.

Strategy: Implement the Stormwater Management Plan recommendations to integrate onsite stormwater management best practices in new development.

- a. Develop design requirements for new development to incorporate onsite stormwater management to reduce flow and increase filtration and infiltration.

### ***Theme Water Supply Management***

**Objective 1.5** Update the City of Evans water resource management plans to address future water supply and sustainability goals.

Strategy: Update the City’s Water Management Plan to address the needs for a financial management plan that will support funding future water supplies and infrastructure projects, such as NISP.

Strategy: Develop an informal or formal mechanism for strengthening regional collaboration between the City of Evans and City of Greeley on the management of water resources.

Strategy: Develop water supply standards for areas served by more than one water provider to clarify policy for water connections in unincorporated Weld County and the City.

Strategy: Apply to Colorado Water Conservation Board’s Water Efficiency Grant Fund Program for a grant to support the development of a new Drought Management Plan.

Costs: \$=<\$5K, \$\$ = \$5-<\$15K, \$\$\$ = \$15-25K, \$\$\$ = >\$25K  
 Potential water savings from WEP

	CITY LEAD	PARTNER	COSTS	PRIORITY LEVEL			POTENTIAL WATER SAVINGS	LOW HANGING FRUIT
			\$-\$\$\$	H	M	L		
<b>GOAL 1: THE CITY OF EVANS WILL SUSTAINABLY MANAGE ITS WATER RESOURCES TO ENHANCE COMMUNITY RESILIENCE.</b>								
Objective 1.1 Develop and support a water conservation program in the City that increases community awareness about the need to save water and supports project implementation.								
Strategy: Implement priorities identified in the 2019 Water Efficiency Plan to hire a water conservation staff person to manage water conservation program development and implementation.		City of Greeley and Northern	\$\$\$		•		24.37 MGY	
Strategy: Create City “lead by example” demonstration project to demonstrate to the community how indoor and outdoor water can be more water efficient.			\$\$		•		0.1 MGY	
<i>Action: Use the WEP and Master Plan to inform project list, create an action plan for project implementation.</i>								
Strategy: Increase collaboration between different City departments involved in water resource management to seek funding for plan implementation.			\$		•			
Objective 1.2 Continue to strengthen partnership with Northern Colorado Water Conservancy District to enhance the City’s capacity for water resource management.								
Strategy: Collaborate with NCWCD to apply their water efficiency programs and resources within the City of Evans.			\$	•				
Objective 1.3 Adopt development code revisions that result in more water efficient development.								
Strategy: Promote a more water efficient commercial sector.								•
<i>Action: Adopt car wash standards requiring water recycling.</i>			\$			•	0.37 MGY	
Strategy: Identify areas of the City of Evans to promote clustering, redevelopment, and smaller, more compact lots that support a more water efficient land use pattern.								
<i>Action: Diversify zoning districts to allow for a greater diversity of smaller lots sizes in new development and redevelopment.</i>			\$\$\$		•			
<i>Action: Create a conservation or cluster subdivision ordinance that allow for creative site design and protection of prioritized natural resources, natural hazard areas, or agriculture lands.</i>			\$\$	•				
Strategy: Create incentives and update the development code to achieve water efficient landscapes.								

Costs: \$=<\$5K, \$\$ = \$5-<\$15K, \$\$\$ = \$15-25K, \$\$\$ = >\$25K

	CITY LEAD	PARTNER	COSTS	PRIORITY LEVEL			POTENTIAL WATER SAVINGS	LOW HANGING FRUIT
			\$-\$\$\$\$	H	M	L		
Action: Update the water conservation ordinance to revise the time of day watering standards and a new water waste ordinance.			\$	•			0.39 MGY	•
Action: Update the existing landscape code to be more water efficient.			\$\$	•			22.29 MGY	
Action: Create water efficient public streetscapes and parking lots.			\$\$		•		1.35 MGY	
Action: Develop water efficient irrigation design standards for public and private parks including incorporation of native or xeriscape as percent of park total, smart controllers, and rain/wind sensors.			\$	•				•
Action: Develop a financial incentive, such as a system development fee reduction, for incorporation of more water efficient landscapes for residential and commercial subdivisions.			\$\$	•				
Action: Adopt a Restrictive Covenant Ordinance to prevent prohibition on water efficient landscapes in subdivision covenants.			\$		•		5.17 MGY	•
Strategy: Create incentives and update the development code to promote indoor water efficiency.								
Action: Adopt a water conservation ordinance to require plumbing fixtures in new and redevelopment projects to be consistent with the State of Colorado WaterSense rule.			\$		•			•
Objective 1.4 Protect water quality and enhance watershed health for the South Platte, Big Thompson, and ditches.								
Strategy: Develop water quality protection standards for waterbodies and wetlands.								
Action: Use recent assessments of natural areas to identify priority wetlands, recharge zones, and riparian areas to inform site planning.			\$	•				
Action: Adopt a minimum 50-100-foot setback to minimize disturbance along riverbanks and riparian corridors.			\$\$	•				
Action: Adopt wetland setbacks that include inner and outer buffers.			\$\$		•			
Action: Develop riparian corridor and wetlands standards that minimizes the disturbance and removal of riparian plant communities.			\$		•			



Costs: \$=<\$5K, \$\$ = \$5-<\$15K, \$\$\$ = \$15-25K, \$\$\$\$ = >\$25K

	CITY LEAD	PARTNER	COSTS	PRIORITY LEVEL			POTENTIAL WATER SAVINGS	LOW HANGING FRUIT
			\$-\$\$\$\$	H	M	L		
<i>Action: As recommended in the Stormwater Management Plan, develop a plan for managing stormwater discharge along the South Platte and tributaries.</i>			\$\$\$		•			
Strategy: Implement the South Platte River Restoration Plan strategies to reconnect the floodplain to the river.								
<i>Action: Explore a transfer of development rights program to incentivize private landowners leaving land in the floodplain undeveloped in exchange for selling development rights to intensify development in redevelopment areas.</i>			\$\$		•			
Strategy: Incorporate water efficient and native landscapes into City and neighborhood public lands management.								
<i>Action: Update streetscape design standards to reduce the need for irrigation by integration of rain gardens, native plants and xeric landscapes into streetscapes, medians, and parking lots in the development code and design manuals.</i>			\$\$		•			
<i>Action: Coordinate with the water conservation program staff to use public lands as “lead by example” demonstration projects for education on xeriscaping and native landscapes.</i>			\$			•		
<i>Action: c. Manage the City’s public lands to restore and enhance native plant communities, particularly in the areas around the rivers, ponds, ditches, and other waterbodies.</i>			\$	•				•
Strategy: Implement the Stormwater Management Plan recommendations to integrate onsite stormwater management best practices in new development.			\$\$	•				
<i>Action: Develop design requirements for new development to incorporate onsite stormwater management to reduce flow and increase filtration and infiltration.</i>			\$\$\$		•			
Objective 1.5 Update the City of Evans water resource management plan to address future water supply and sustainability goals.								
Strategy: Update the City’s Water Management Plan to address the needs for a financial management plan that will support funding future water supplies and infrastructure projects, such as NISP. (includes revising SDF)			\$\$\$		•		51.14 MGY	
Strategy: Develop an informal or formal mechanism for strengthening regional collaboration between the City of Evans and City of Greely on the management of water resources.			\$		•			•

Costs: \$=<\$5K, \$\$ = \$5-<\$15K, \$\$\$ = \$15-25K, \$\$\$ = >\$25K

	CITY LEAD	PARTNER	COSTS	PRIORITY LEVEL			POTENTIAL WATER SAVINGS	LOW HANGING FRUIT
			\$-\$\$\$\$	H	M	L		
Strategy: Develop water supply standards for areas served by more than one water provider to clarify policy for water connections in unincorporated Weld County and the City.			\$		•			•
Strategy: Apply to Colorado Water Conservation Board's Water Efficiency Grant Fund Program for a grant to support the development of a new Drought Management Plan.			\$\$	•			10.26 MGY	

